

hence the weights of the FCBR are user-defined. As a part of future prospects, utilizing a genetic algorithm to set up and adjust the QIM and QIC weights according to a database of past experiences is to be proposed.

ACKNOWLEDGMENT

This project is partially sponsored by University Tenaga Nasional (UNITEN) under the UNIIG Grant Scheme No. J510050772. It is also partially supported by the Universiti Tun Hussein Onn Malaysia (UTHM) under RMC Research Fund Vot E15501.

REFERENCES

- [1] D. Galin, *Software Quality Assurance: From Theory to Implementation*: Pearson Education Limited, 2004.
- [2] W. M. Wilson, L. H. Rosenberg, and L. E. Hyatt, "Automated analysis of requirement specifications," In Proc. of the 19th international conference on Software engineering, ACM, 1997, pp. 161-171.
- [3] H. Mat Jani, and S. A. Mostafa, "Implementing Case-Based Reasoning Technique to Software Requirements Specifications Quality Analysis", *The International Journal of Advancements in Computing Technology, (IJACT)*, Vol. 3, No. 1, 2011, pp. 23-31.
- [4] A. A. Alshazly, A. M. Elfatry and M. S. Abougabal, Detecting defects in software requirements specification. *Alexandria Engineering Journal*, 53(3), 513-527, 2014.
- [5] H. Mat Jani, "Applying Case-Based Reasoning to Software Requirements Specifications Quality Analysis System", in The Proceeding of The 2nd International Conference of Software Engineering and Data Mining (SEDM 2010): IEEE/AICIT, Chengdu, China, pp 140-144, 2010.
- [6] M. A. Jubair, S. A. Mostafa, A. Mustapha and H. Hafit, "A Survey of Multi-agent Systems and Case-Based Reasoning Integration," In *2018 International Symposium on Agent, Multi-Agent Systems and Robotics (ISAMSR)*, IEEE, pp. 1-6, Aug., 2018.
- [7] S. Nikolaidis, and C. Lazos, Fuzzy Case Identification in Case-Based Reasoning Systems, *Computational Intelligence*, Volume 15, Number 3, 2000.
- [8] P. P. Bonissone, and L. M. Ramon, *F4.3 Fuzzy Case-Based Reasoning Systems*: Citeseer, 2008 [online]. Available: <http://www.mendeley.com/research/f4-3-fuzzy-casebased-reasoning-systems/>.
- [9] K. P. Sankar, and C. K. Simon, *Foundation of Soft Case-Based Reasoning*: John Wiley & Sons, Inc., Hoboken. New Jersey, 2004.
- [10] S. A. Mostafa, M. S. Ahmad and M. Firdaus, A soft computing modeling to case-based reasoning implementation, *International Journal of Computer Applications*, 47(7), 14-21, 2012.
- [11] S. A. Mostafa, A. Mustapha, M. A. Mohammed, M. S. Ahmad and M. A. Mahmoud, A fuzzy logic control in adjustable autonomy of a multi-agent system for an automated elderly movement monitoring application. *International journal of medical informatics*, 112, 173-184, 2018.
- [12] H. T. Nguyen, C. L. Walker and E. A. Walker, *A first course in fuzzy logic*. CRC Press, 2018.
- [13] S. A. Mostafa, R. Darman, S. H. Khaleefah, A. Mustapha, N. Abdullah and H. Hafit, A general framework for formulating adjustable autonomy of multi-agent systems by fuzzy logic. In *KES International Symposium on Agent and Multi-Agent Systems: Technologies and Applications*, Springer, Cham, pp. 23-33, Jun. 2018.
- [14] M. K. A. Ghani, M. A. Mohammed, M. S. Ibrahim, S. A. Mostafa and D. A. Ibrahim, Implementing an Efficient Expert System for Services Center Management by Fuzzy Logic Controller. *Journal of Theoretical & Applied Information Technology*, vol 95,13, 2017.
- [15] M. A. Mohammed, M. K. A. Ghani, N. A. Arunkumar, O. I. Obaid, S. A. Mostafa, M. M. Jaber and D. A. Ibrahim, Genetic case-based reasoning for improved mobile phone faults diagnosis. *Computers & Electrical Engineering*, 71, 212-222, 2018.
- [16] R. Elaine, K. Kevin, and B. Shivshankar, *Artificial Intelligence (3rd Edition)*: McGraw-Hill Education, India, 2009.
- [17] Firesmith, D. (2003). Specifying good requirements. *Journal of Object Technology*, 2(4), 77-87.
- [18] J. D. Blaine and J. Huang, Software quality requirements: how to balance competing priorities. *IEEE Software*, 25(2):22-24, 2008.